

Analysis of Production Sectors in Creating Main Sector in Regional Economy (Case Study: North Sumatra Province - Indonesia)

Togu Harlen Lbn. Raja¹, Sofiyan²

^{1,2}Sekolah Tinggi Ilmu Ekonomi LMII, Sekolah Tinggi Ilmu Ekonomi Sultan Agung

Abstract: God created the earth and all its contents that can be utilized by humans as well as possible so that human needs can be fulfilled and man can live peacefully on earth created by God Almighty.

All creation of God Almighty must be managed properly through the empowerment of existing production sectors so as to provide value for life both in terms of economic, social and cultural.

The production sectors in North Sumatra Province, Indonesia are very rich and if managed well will contribute to sustainable economic improvement of society and region.

To see which sector is the most dominant in contributing to regional income can be used with Location Quotient (LQ) method.

Based on the analysis of Location Quotient (LQ) Method on Gross Regional Domestic Product (GRDP) of North Sumatra Province and National Domestic Product from 2010-2014, it can be explained that the leading sectors in North Sumatra Province are agriculture sector, manufacturing industry sector, construction sector, trade sector, hotel, restaurant, transportation sector, communications and financial sector, company and company services because $LQ > 1$.

Then the non-sectors of the sector are mining, electricity, gas and water sector and services sector where $LQ < 1$.

Keywords: Production Sector, Superior Sector and Economic Growth.

Preliminary

The production sectors in each country and region are the capital given by God Almighty to the state and the region whose utilization should be able to provide for the welfare of society.

Countries and regions managing the existing production sectors should consider their utilization effectively and efficiently because human life is not known until when it ends, then the management of the existing production sectors should pay attention to the future of the next generation.

The potential of each region and country is different so that each country and region must be interdependent and can not stand alone, therefore in managing the production sectors need cooperation between countries with other countries, between countries and regions and between regions so that can transfer science and technology as well as working capital in managing all existing production sectors in the country and region to be utilized for the life of many people. There are 2 resources: 1. Natural resources, 2. Human resources.

Then the natural resources can be divided into two namely: 1. Renewable resources, 2. Non-renewable natural resources.

Specifically, natural resources need serious attention, especially non-renewable natural resources, because if they are wrong in managing non-renewable resources, they will be exhausted from the earth and can not be renewed.

Existing natural resources into potential countries and regions that can be divided into several production sectors for the country and region, among others:

1. Agricultural Sector.
2. Mining Sector.
3. Industrial Sector.
4. Electricity and Water Sector.
5. Building Sector.
6. Trade Sector, Hotel and Restaurant.
7. Transportation and Communication Sectors.
8. Banking, Finance and Housing Sectors.
9. Service Sector.

In the management of these production sectors does not as a whole contribute equally to state or local revenue, but depends on the value contributed by these production sectors to human life.

The Province of North Sumatra-Indonesia is a very potential province because it has a tremendous natural wealth and good geographical conditions.

North Sumatra Province has an area of 71,680.68 km² or 3.72% of the total territory of Indonesia with geographical position between 10-40 LU and 980-1000 BT and borders with:

1. North side is bordered by Aceh Darussalam Province.
2. Southern side borders with Riau and West Sumatera Provinces.
3. The West is bordered by the Indian Ocean.
4. The East is bordered by the Malacca Strait.

Topography of North Sumatra Province consists of 3, namely: 1). The coastal area has an area of 65.51%, 2). Lowland which has an area of 8.64% and 3). Plateau above 40% area of 24, 28% and Lake Toba area of 1.57%.

Given this geographical condition, the Province of North Sumatra has a very fertile land and is suitable for empowering the agricultural sector with the type and number of different plants as well.

In the management of natural resources, it is necessary to be supported by the availability of human resources as the implementer of natural resources empowerment activities.

Besides the wide and fertile agricultural land in North Sumatra Province, geographically also North Sumatra Province is very good for conducting international trade which is adjacent to Malaka Strait which is close to Malaysia.

Besides the potential of good natural resources, North Sumatra Province also has good human resource potential as shown in Table 1.

TABEL 1: Number Of Population Of North Sumatra Province Year 2012-2016

NO	YEAR	NUMBER OF POPULATION (SOUL)
1.	2012	13.201.401
2.	2013	13.326-397
3.	2014	13.530.234
4.	2015	13.397.797
5.	2016	14.102-902

Source : Cental Bureau Of Statistic Of North Sumatra Province, 2016

Based on these data, North Sumatra Province does not experience any obstacles in managing natural resources because it can be supported by the availability of good human resources which continue to develop from the amount.

North Sumatra Provincial Government should plan the improvement of competence and qualification of human resources so that natural resource management process can be managed effectively and efficiently.

Population growth is not followed by economic growth will result in a difficult social impact because it will lead to increased unemployment as well and then will lead to high crime rates.

According to Arsyad, 1988, explaining that increasing population will cause problems and obstacles to development efforts because it causes rapid increase of labor force while the ability of developing countries like Indonesia is very limited in creating new job opportunities.

Meanwhile Sitanggang and Nachrowi, 2004, explained that the large population and workforce are reliable human resource potentials included in the industrial sector.

When viewing topography of North Sumatra Province, agriculture and plantation sector is the leading sector in

North Sumatra Province which contributes the most to the income of the people and regions in North Sumatra Province which is seen from the contribution of agriculture and plantation sector to the regional economy.

The leading sector is a priority sector that should be developed by local governments because it provides better value in terms of its contribution to regional and state revenues.

According to Daryanto, 2004, said that the selection of development priorities that refers to the needs of the community will ultimately improve the living standards of people around the area.

Formulation of The Problem.

By looking at the background that has been explained then can be formulated problem as follows: "How the role of production sectors to the creation of regional income in North Sumatra Province".

Hypothesis.

Based on the background and the formulation of the problems that have been explained, the hypothesis can be drawn as briukut: "The sectors of production play a role in creating regional income in North Sumatra Province".

Research purposes.

1. To know how the role of production sectors to the creation of regional income in North Sumatra Province.
2. To provide a view to the Provincial Government of North Sumatra regarding the sectors of production that contribute to local revenue in the Province of North Sumatra.
3. To provide information to other parties about empowerment of potential areas that can be empowered in order to create regional and state revenues.

Theoretical Review

Economic growth

In empowering the existing production sectors, the local government should make a good analysis especially in utilizing limited natural resources because it requires good policy in managing natural resources so that the next generation can feel the natural resources to fulfill their life.

To find out how much economic growth area can be seen from the amount of Gross Regional Domestic Product (GRDP) in each region.

Growth and growth of Gross Regional Domestic Product (GDP) every year is an indicator of the advance of the regional economy contributed by the sectors of production in the region.

Economic growth is a long-term increase in a country's ability to provide more types of economic goods to its

population, this ability grows according to technological capabilities, necessary institutional and ideological adjustments. (Kuznet In Jhingan, 2004).

Gross Regional Domestic Product (GRDP).

Gross Regional Domestic Product (GRDP) has a relationship with Local Revenue (PAD) and is a functional relationship due to Gross Regional Domestic Product (GRDP) is a function of Locally Generated Revenue (LGR). (Sentosa and Rahayu, 2005).

Tarigan, 2007, explained that the Gross Regional Domestic Product (GRDP) is the level of income of the people in the region where the regional income level can be measured from the total income of the region or the average income of the community in the area.

Imamul Arifin, 2007, explains that Gross Regional Domestic Product (GDP) is the value of goods and services end generated by people in a region (region) both at the provincial and district / city levels.

Then Kuncoro, 2004, explains that the Gross Regional Domestic Product (GRDP) is all goods and services that are the result of various economic activities in the domestic area regardless of whether the product factors come from the population and are owned by the population.

The production sectors that exist in each region have differences seen from their contribution to the regional economy and the largest sector contributes to the regional economy so the sector is an economic base sector and this should be managed properly.

Then the Gross Regional Domestic Product (GRDP) provides benefits:

1. Knowing or reviewing the structure or structure of the regional economy.
2. Compare the region's economy from time to time.
3. Compare the inter-regional economy.
4. Formulate government policy. (CBS, 2004).

Economic Sector.

The base sector is a community activity that produces goods or services aimed at export activities abroad from an

outward, regional, national and international oriented environment. (Rusastra, et al., 2002).

According Saharuddin, 2005, there are 2 sectors of economic base activity that is:

1. Economic base sector is a sector that has a huge potential to build the regional economy.
2. Non-economic base sector is the supporting sector to the regional economy.

Previous Research

Elli Kartikaningdiyah, 2010, explains that the services sector, the transportation sector and the construction sector is the base sector in Lingga Regency where LQ services sector > 1 or 1.17 and the transport sector LQ > 1 or 1.50 and the building sector LQ > 1 or 2. 40.

Istiko Agus Wicaksono, 2011, explained that the sub-sector of plant material is the base sector in Purworejo Regency where as much as 62, 5% Kecamatan in Purworejo Regency is supported by plant material sector sub-sector where LQ > 1.

Ekaristi Jekna Mangilaleng, Debby Rotinsulu, Wensi Rompas, 2015, explains that the mining sector, industrial sector and agricultural sector are the basic sectors where the three sectors have LQ > 1 where the mining sector has LQ 1.93, the industrial sector has LQ 1.11 and the agricultural sector has LQ 1.65.

Research Methods

Place of Research

In this study as a place of research or the object of research is the Province of North Sumatra.

Types And Data Sources.

In this research used quantitative data that is data about Gross Regional Domestic Product (GRDP) of North Sumatera Province and Indonesia National Domestic Product (NDP) Year 2012 - 2015.

Data were collected from the sources of the Central Bureau of Statistics (CBS) of North Sumatra Province and Central Bureau of Statistics (CBS) Central.

TABLE 2: GRDP Province of North Sumatera Year 2010-2014 (Milyar Rupiah)

NO	BUSINESS FIELD	2010	2011	2012	2013	2014
1.	Agriculture, Livestock, Forestry, Fisheries	85.561.14	95.856.86	103.933.11	115.194.75	121.435.44
2.	Mining, Quarrying	3.3364.34	4.048.82	4.848.02	6.581.44	6.944.81
3.	Processing Industry	70.540.95	79.947.92	86.171.93	93.241.47	104.224.0
4.	Electricity, Gas, Water	717.73	998.98	1.040.96	1.028.03	1.016.27
5.	Building	38.650.89	44.527.25	51.426.26	60.997.62	71.225.77
6.	Trade, Hotel, Restaurant	56.555.80	64.308.76	70.891.92	78.324.82	89.597.00
7.	Transportation, Communication	27.536.96	31.462.5	35.847.97	41.758.03	46.868.88
8.	Finance, Corporate, Corporate Service	45.607.45	53.020.72	59.728.76	69.357.61	78.136.16
9.	Services	1.510.93	1.769.39	1.964.64	2.332.95	2.690.15
Total		331.085.24	377.037.10	417.120.44	470.221.98	523.771.57

Sources : Central Bureau Statistic, North Sumatera Province, 2010-2014

TABLE 3: GRDP National Indonesia Year 2010-2014 (Milyar Rupiah)

NO	BUSINESS FIELD	2010	2011	2012	2013	2014
1.	Agriculture, Livestock, Forestry, Fisheries	985.470.5	1.091.447.1	1.193.452.9	1.310.427.3	1.446.722.3
2.	Mining, Quarrying	482.377.1	529.967.8	574.916.3	621.832.7	668.337.1
3.	Processing Industry	719.710.1	876.983.8	972.458.4	1.026.279.0	1.058.750.2
4.	Electricity, Gas, Water	1.599.073.1	1.806.140.5	1.972.523.6	2.252.802.8	2.394.004.9
5.	Building	660.890.5	753.554.6	844.090.9	907.267.0	1.014.540.8
6.	Trade, Hotel, Restaurant	882.487.2	1.023.724.8	1.148.791.0	1.301.175.0	1.473.559.7
7.	Transportation, Communication	423.172.2	491.287.0	549.105.4	635.302.9	746.648.2
8.	Finance, Corporate, Corporate Service	466.563.8	535.152.9	594.433.3	682.973.2	771.961.5
9.	Services	660.365.5	785.014.1	889.798.8	1.000.651.7	1.108.610.3
Total		6.446.851.9	7.419.187.1	8.230.925.9	9.087.276.5	10.094.928.9

Sources : Central Bureau Statistic, Indonesia, 2010-2014.

Data Analysis

To analyze the data used in this research is using Location Quotient Method with formula:

$$LQ = \frac{Xi NS / GRDPNS}{Xi N / NGRDP}$$

Where :

LQ = Location Quotient

XiNS = Value Added Sector i In North Sumatra Province

GRDPNS = Gross Regional Domestic Product of North Sumatra

XiN = Value Added Sector i At National Level

NGRDP = National Gross Regional Domestic Product

1. $LQ > 1$ means that the value of sector i in North Sumatra Province is greater than the sector i value at the National Level so that this is the base sector and sector i in North Sumatra Province can export.

2. $LQ = 1$ means that the value of sector i in North Sumatra Province is equal to the value of sector i at the National Level where sector i in North Sumatra Province can only meet the needs of North Sumatra Province.

3. $LQ < 1$ means that the value of sector i in North Sumatra Province is smaller than that of sector at National Level so it is a non-base sector in North Sumatra Province and the need of sector i in North Sumatra Province must be imported from outside region or country.

Research Result

Based on the data in Table 2 and Table 3 then it is analyzed using Location Quotient (LQ) method which aims to calculate the contribution amount of each sector to the regional income in order to improve the regional economy.

TABLE 4: Calculation Of Location Quotient Method Year 2010-2014 (Milyar Rupiah)

NO	BUSINESS FIELD	2010	2011	2012	2013	2014
1.	Agriculture, Livestock, Forestry, Fisheries	1.7	1.7	1.8	1.7	1.6
2.	Mining, Quarrying	0.14	0.14	0.16	0.14	0.14
3.	Processing Industry	1	2.1	1.8	1.7	1.9
4.	Electricity, Gas, Water	0.01	0.01	0.1	0.01	0.01
5.	Building	1.2	1.2	1.2	1.3	1.4
6.	Trade, Hotel, Restaurant	1.2	1.2	1.2	1.2	1.1
7.	Transportation, Communication	1.1	1.1	1.2	1.2	1.2
8.	Finance, Corporate, Corporate Service	1.4	1.4	1.4	1.9	2.1
9.	Services	0.05	0.05	0.05	0.05	0.05

The calculation result of Location Quotient (LQ) method over the data of Table 2 and Table 3 can be explained as follows:

1. $LQ > 1$ consists of agriculture sector, manufacturing industry sector, building sector, trade sector, hotel, restaurant, transportation sector, communications and financial sector, company and service means that these sectors are superior sector in North Sumatra Province.

2. $LQ < 1$ consists of mining, electricity, gas and water sector and services sector means that these sectors are not the leading sector in North Sumatra Province.

Conclusion

1. The Provincial Government of North Sumatra must maintain the production sectors that are the leading

sectors as they can affect the regional and state revenue sources.

2. The agriculture sector that became the leading sector decreased in the Year 2014 where LQ in the year 2013 amounted to 1.7 decreased to 1.6 where this is caused as a diversion of agricultural land use into residential and industrial,

Suggestion

1. The Provincial Government of North Sumatra should empower better the sectors that have not become the leading sector in this area can be seen from the low value of $LQ > 1$.
2. North Sumatera Provincial Government needs to make easier policy in administration and business licensing in North Sumatera Province so that investors will come to North Sumatera Province.

Daftar Pustaka

1. Arsyad, Lincolin, 1988, *Ekonomi Pembangunan*, Edisi Pertama, Penerbit STIE-YPKN, Yogyakarta.
2. Dariyanto, 2004, *Keunggulan Daya Saing dan Teknik Identikasi Komoditas Unggulan : Dalam Mengembangkan Potensi Ekonomi Regional*, Volume 9, Nomor 2.
3. Ekaristi Jekna Mangilaleng, Debby Rotinsulu, Wensi Rompas, 2015, *Analisis Sektor Unggulan Kabupaten Minahasa Selatan*, *Jurna Berkala Ilmiah Efisiensi*, Vol. 15, No. 4.
4. Elly Kartikaningdyah, 2010, *Analisa Locatio Quotient Dalam penentuan Produk Unggulan Pada beberapa Sektor di Kabupaten Lingga Kepulauan Riau*, *Jurnal Integrasi*.
5. Jhingan, 2004, *Ekonomi Pembangunan Dan perencanaan*, Penerbit PT. Raja Grafindo Persada, Jakarta.
6. Imamul Arifin, 2007, *Membuka Cakrawala Ekonomi*, Penerbit PT. Grafindo, Bandung.
7. Istiko Agus Wicaksono, 2011, *Analisis Location Quotient Sektor Dan Sub Sektor Pertanian Pada Kecamatan di Kabupaten Purworejo*, *Jurnal Mediagro*, Vol. 7, No. 2.
8. Kuncoro, Mudrajat, 2004, *Otonomi Daerah Dan Pembangunan Daerah*, Penerbit PT. Erlangga, Jakarta.
9. Rusastra, I, W, Pantjar Simatupang dan Benny Rachman, 2002, *Pembangunan Ekonomi Pedesaan Berlandaskan Agribisnis. Dalam Tahlim Sudaryanto, dkk, (Penyunting), Analisis Kebijakan: Pembangunan Peertanian Andalan Berwawasan Agribisnis*, Monograph Series No. 23 Pusat Penelitian Dan pembangunan Sosial Ekonomi Pertanian.
10. Saharuddin, S., 2005, *Pengaruh Perkembangan Ekonomi Terhadap Penerimaan APBD Dan Kesejahteraan Rakyat Di Wilayah Sulawesi Selatan*, Disertasi, Program Pascasarjana, UNHAS, Makasar.
11. Sentosa, Purbayu Budi, Retno Puji Rahayu, 2005, *Analisis Pendapatan Asli Daerah Dan Faktor-faktor Yang mempengaruhinya Dalam Upaya Pelaksanaan Otonomi Daerah Di Kabupaten Kediri*, *Jurnal Dinamika Pembangunan*, Volume 2. Nomor 1. Juli 2005.
12. Sitanggang, I., R., dan Nachrowi, N., D., 2004, *Pengaruh Struktur Ekonomi Pada Penyerapan Tenaga Kerja Sektoral: Analisis Model Demometrik Di 30 Provinsi Pada 9 Sektor di Indonesia*, Vol 5, No. 1, 2004.
13. Tarigan, R., 2007, *Ekonomi Regional Teori Dan Aplikasi*, Penerbit PT. Bumi Aksara Jakarta.